

# Kubernetes Production Readiness Checklist

The gate we run every cluster through before it carries production traffic.

## Cluster & Control Plane

- Managed control plane (EKS / AKS / GKE) on a supported version
- Cluster autoscaler and node group upgrades tested
- Audit logging shipped to a central SIEM
- Admission controllers: PodSecurity, OPA Gatekeeper or Kyverno

## Workload Configuration

- Requests and limits set on every container
- Liveness, readiness, and startup probes defined
- PodDisruptionBudgets on every Deployment
- topologySpreadConstraints or anti-affinity across zones

## Networking & Ingress

- NetworkPolicies default-deny with explicit allows
- TLS terminated at ingress; internal mTLS where applicable
- External-DNS and cert-manager automated

## Observability

- Prometheus + Grafana or managed equivalent
- Structured JSON logs shipped to Loki / OpenSearch / Splunk
- Distributed tracing via OpenTelemetry
- Golden signals dashboards per service

## Delivery

- GitOps via Argo CD or Flux
- Progressive delivery: canary or blue/green
- Rollback rehearsed at least once per quarter

## Security & Compliance

- Image scanning in CI and at admission
- No :latest tags in production manifests
- Secrets sourced from external store (Vault / ASM / KV)

## ■ Backup / DR for etcd and stateful workloads

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